

Name: \_\_\_\_\_ TP: \_\_\_\_\_

**Directions:** After reading through the syllabus, answer the following questions in complete sentences.

- 1) When are *your* math teacher's office hours? Can you get help from *your* math teacher outside of office hours?
- 2) In your own words, describe the homework grading policy. When will you be issued a LaSalle?
- 3) What are the two big goals for Geometry this year?
- 4) Write down at least one Geometry concept that you will learn by the end of the year.
- 5) What are the six categories that will determine your grade in Geometry? Which one will have the most effect on your grade?
- 6) What is the purpose of the Proactive Intervention Plan (PIP)? How will you receive PIP?
- 7) What do you need to bring to class every day? What is the consequence if you do not bring it?
- 8) Where can you look for work when you are absent? Write down the website.
- 9) What will happen if you do not turn in your portfolio?
- 10) What does my teacher expect of me in geometry this year?

**PUSH IT TO THE LIMIT.**

<b>Name:</b>	<b>Favorite Colors:</b>	<b>Birth date:</b>	<b>Class Period:</b>
Who do you live with at home? List their names, ages (if under 25), and their relationship to you.			
If your Geometry teacher needs to contact your parent(s)/guardian(s), she should ask for... _____ at this phone number: _____			

**Now for some information about you! (Don't leave any blank spaces!)**

What organizations / teams / enrichments do you belong to?
My favorite things to do are...
3 songs I want to hear in class are...
I know a teacher cares about me when....
One thing I can't stand is...
I'm better than anyone when it comes to...
Someone I admire is...
My dream is to...
Two words that describe me best are...
If I could change one thing about myself...
I think school is...
Nobody knows I'm...
Math is...
One goal I have this year is...
My favorite classroom activities are...
My favorite subject in school is...
The best way to motivate me in the classroom is to...
One personal thing I want to know about my Geometry teacher is...
One personal thing my Geometry teacher should know about me is...
One thing I need or expect from my Geometry teacher is...

Artifact Team Builder (ongoing throughout the week).

- Bring **FIVE** objects/pictures/symbols that represent something that is important to you by *tomorrow, Tuesday, August 28*. Bring these items to class if you are scheduled to present, otherwise, leave these belongings in your locker.
  - For example, if family is extremely important to you, bring a picture of a family barbeque. Or, if you are really into basketball, bring in a basketball.
- You and your classmates will share the significance of the five objects throughout the rest of the week on your scheduled presentation day.
- You will receive LaSalle if you do not bring your artifacts with you to class on your scheduled presentation day.

**PUSH IT TO THE LIMIT.**

Name: \_\_\_\_\_ TP: \_\_\_\_\_

Failure to show work and write in complete sentences will result in a LaSalle.

1. Define "collinear" and *sketch an example* of collinear points.

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2. Define "coplanar" and *sketch an example* of coplanar points.

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3. What is the different between a ray and a line?

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4. Write the necessary notation above "AB" to demonstrate that (a.) is a line, (b.) is a line segment, and (c.) is a ray.

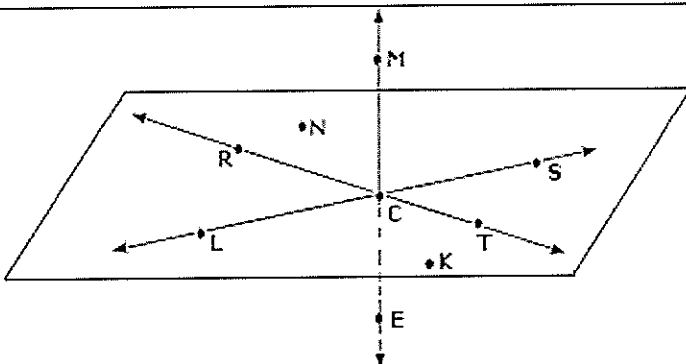
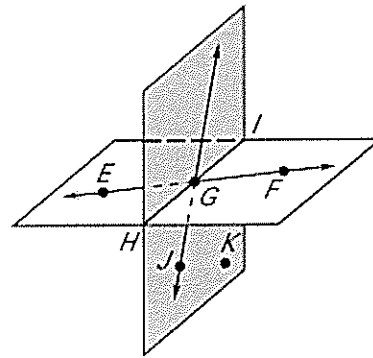
(a.) AB

(b.) AB

(c.) AB

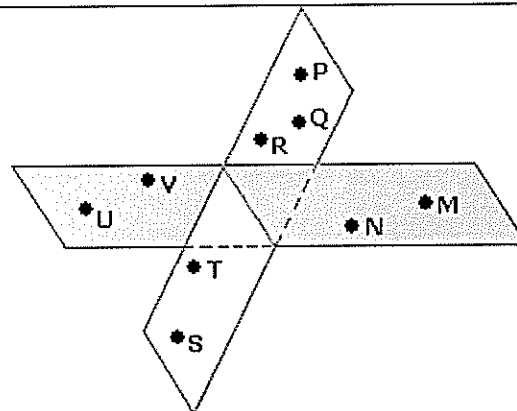
5. Use the diagram to decide whether the given statement is *true* or *false*.

- a. Points E, G, and F are collinear. \_\_\_\_\_
- b. Points E, G, and F are coplanar. \_\_\_\_\_
- c. Points H, I, and G are collinear. \_\_\_\_\_
- d. Points H, I, and J are coplanar. \_\_\_\_\_



6. Name at least 3 sets of 3 points in the figure above that are collinear.

- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. \_\_\_\_\_

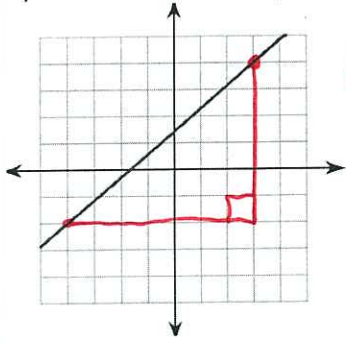


7. Name at least 3 sets of 3 points in the figure above that are coplanar.

- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. \_\_\_\_\_

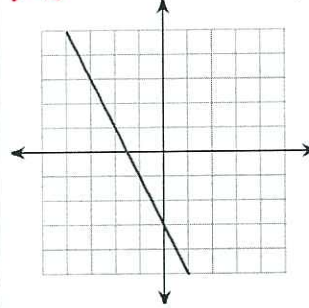
**PUSH IT TO THE LIMIT.**

8) Determine the slope of the line below: \_\_\_\_\_



$$\frac{\text{RISE}}{\text{RUN}} = \frac{2}{2} = 1$$

9a) Determine the slope of the line below: \_\_\_\_\_



DO NOT  
DO  
THIS PROBLEM

b) What is the y-intercept? \_\_\_\_\_

10) Sketch a line with the given slope:

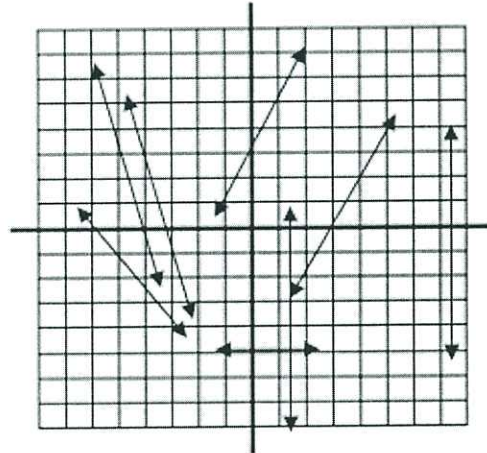
a) Zero

What is this kind of line called: \_\_\_\_\_

b) Undefined

What is this kind of line called: \_\_\_\_\_

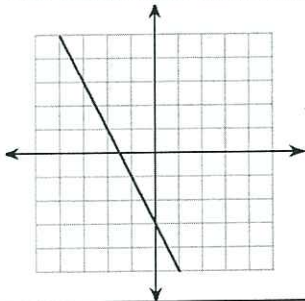
11) Use the graph below to answer the questions that follow.



- a) How many lines have a positive slope? \_\_\_\_\_
- b) How many lines have a negative slope? \_\_\_\_\_
- c) How many lines have an undefined slope? \_\_\_\_\_
- d) How many lines have a slope of zero? \_\_\_\_\_

12) Sketch a line in the box to the right to represent the following scenario: Mr. Lawler was sitting in his car stuck in traffic on a highway. He did not accelerate at all for ten minutes.

13) **Error Analysis.** Cindy looked at the graph below and stated that the slope was  $-\frac{1}{2}$ . Explain what mistake she made and correct her by providing the accurate slope of the line.



14) **Explain.** In 2 sentences, explain which line has the steepest slope by analyzing the equations of the lines below.

Line a:  $y = 2x - 4$

Line b:  $y = \frac{1}{3}x + 2$

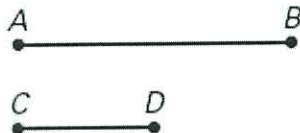
**PUSH IT TO THE LIMIT.**

Name: \_\_\_\_\_ TP: \_\_\_\_\_

**HW#2 FORM A: Line Segments**  
**Geometry**  
 Due Date: Thursday, August 30<sup>th</sup>, 2012

**Failure to show work and write in complete sentences will result in a LaSalle.**

1. Measure the following line segments to the nearest tenth of an inch.



AB: \_\_\_\_\_ centimeters \_\_\_\_\_ inches

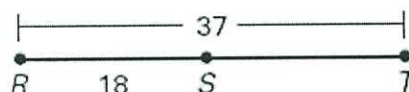
CD: \_\_\_\_\_ centimeters \_\_\_\_\_ inches

2. On a particular line segment, points A, B, and C are collinear, and B is between A and C. If  $AB = 15$  and  $BC = 9$ , what is the measure of  $AC$ ?

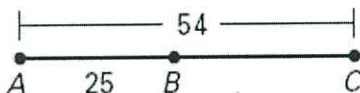
3. Find  $KM$ .



4. Find  $ST$ .



5. Find  $BC$ .



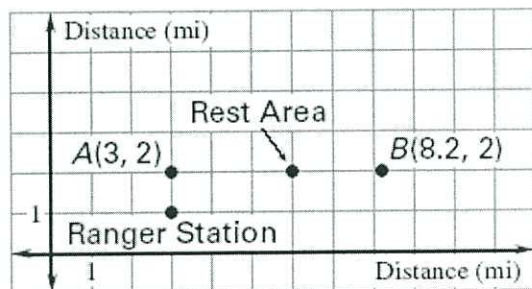
6. If  $AC = 35$ , what is the value of  $MC$ ?



$$\begin{aligned} x + 5 + 2x &= 35 \\ 3x + 5 &= 35 \\ 3x &= 30 \\ x &= 10 \end{aligned}$$

$3x = 30$   
 $\frac{3x}{3} = \frac{30}{3}$   
 $x = 10$   
 What is  $MC$ ?

7. On the map, AB represents a trail that you are hiking. You start from the beginning of the trail and hike for 90 minutes at a rate of 1.4 miles per hour. How much farther do you need to hike to reach the end of the trail?



8. On a separate sheet of graph paper, plot the given points in a coordinate plane. Then state whether the line segments are congruent.

a. Plot the points  $A(2, 2)$ ,  $B(4, 2)$ ,  $C(-1, -1)$ ,  $D(-1, 1)$

Are AB and CD congruent? \_\_\_\_\_

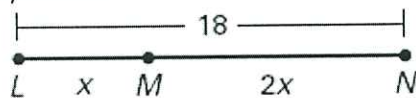
b. Plot the points  $M(1, -3)$ ,  $N(4, -3)$ ,  $O(3, 4)$ ,  $P(4, 4)$

Are MN and OP congruent? \_\_\_\_\_

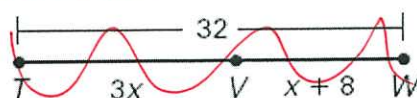
c. Plot the points  $E(-3, 4)$ ,  $F(-1, 4)$ ,  $G(2, 4)$ ,  $H(-1, 1)$

Are EG and FH congruent? \_\_\_\_\_

9) Find  $LM$ .

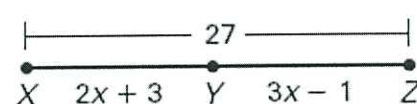


10) Find  $VW$ .



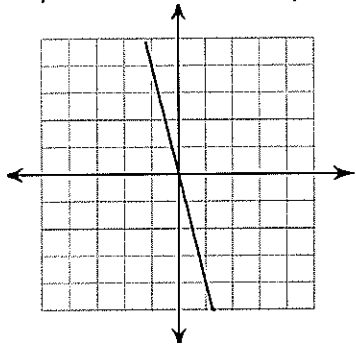
DO NOT DO

11) Find  $YZ$ .



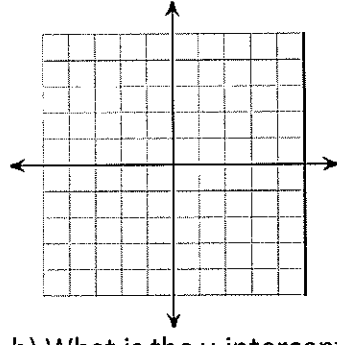
**PUSH IT TO THE LIMIT.**

12) Determine the slope of the line: \_\_\_\_



b) What is the y-intercept? \_\_\_\_

13) Determine the slope of the line: \_\_\_\_



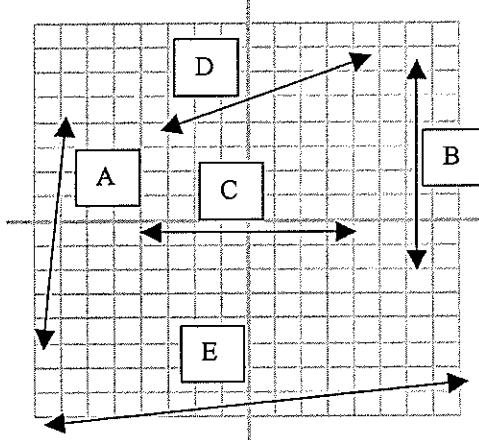
b) What is the y-intercept? \_\_\_\_

14a) Which line has the smallest positive slope?

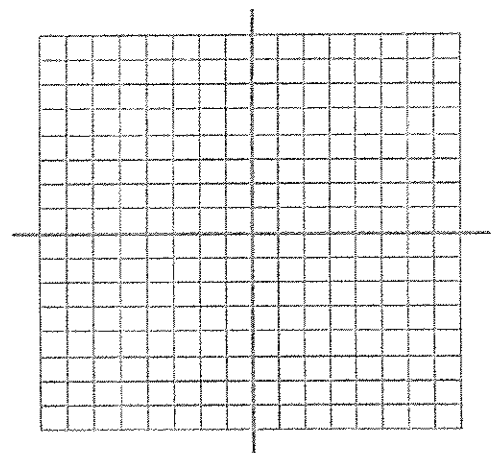
b) Which line has the biggest positive slope?

c) What is the slope of line B?

d) What is the slope of the line C?

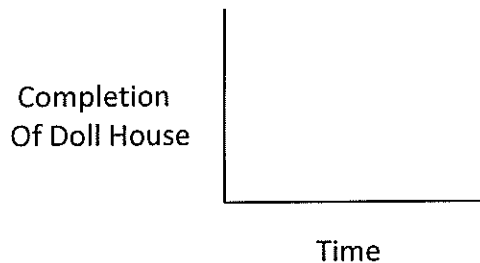


15) Sketch the graph of a line that crosses through the point  $(-5, 0)$  and has a slope of 2.

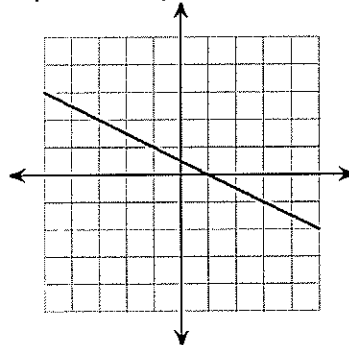


16) Shirley builds a doll house on her own for an hour. At that time, her mother starts helping her build, and they work together at a rate of twice the speed Shirley was working alone.

Plot the scenario on the graph below:



17) **Error Analysis.** Detteller determined that the slope of the line below is  $\frac{1}{2}$ . Is she correct? *Why or why not – explain & correct.*



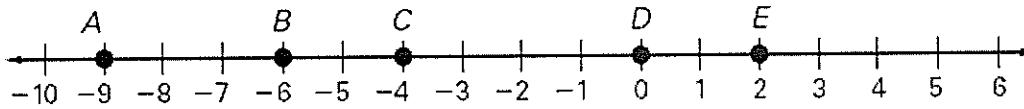
18) **Explain.** Carlos lets a tennis ball roll down a ramp that has a height of 8 feet and a length of 12 feet. Taniya lets a tennis ball of the same dimensions roll down another ramp that has a height of 3 feet and a length of 10 feet. Whose ball will get to the end of the ramp first? *Why? Be specific.*

**PUSH IT TO THE LIMIT.**

Name: \_\_\_\_\_ TP: \_\_\_\_\_

**Failure to show work and write in complete sentences will result in a LaSalle.**

Use the number line below to answer questions 1 – 4.



1. What is the distance, in coordinate units, between points A and B?

2. What is the distance, in coordinate units, between points B and E?

3. How much longer is  $AD$  than  $BE$ ?

4. How much longer is  $CD$  than  $DE$ ?

Use the description of a number line below to answer questions 5 – 6. Sketch the number line below before answering the questions.

*On a number line, point W is located at 3, X is located at -5, Y is located at -16, and Z is located at 11.*



5. What is the distance, in coordinate units, between points W and Z?

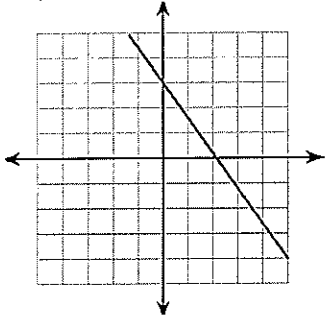
6. What is the distance, in coordinate units, between points Y and Z?

7. How much longer is  $WY$  than  $XZ$ ?

8. How much longer is  $YZ$  than  $WX$ ?

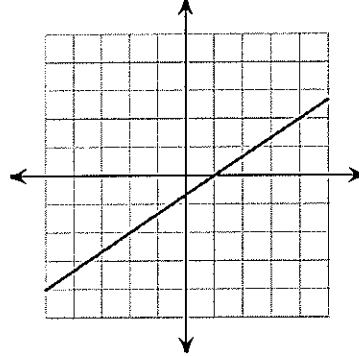
**PUSH IT TO THE LIMIT.**

9a) Determine the slope of the line: \_\_\_\_



b) What is the y-intercept?

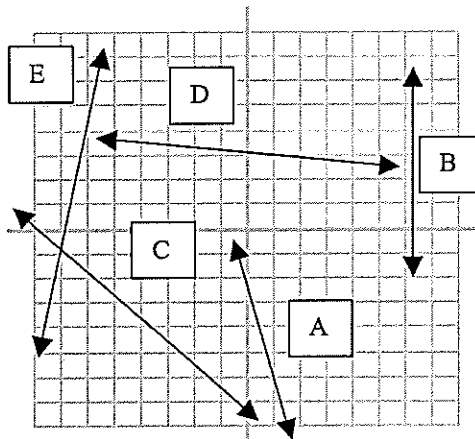
10) Determine the slope of the line: \_\_\_\_



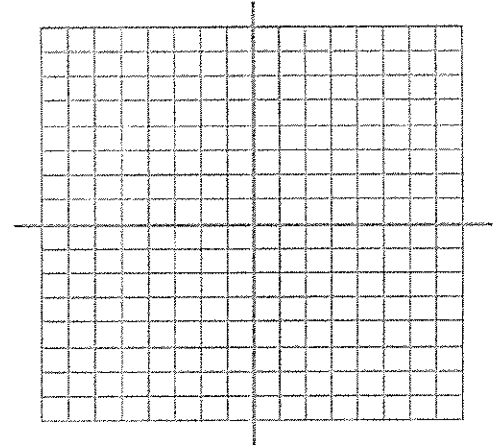
11a) Which line has the smallest negative slope?

b) Which line has the biggest negative slope?

c) What is the slope of line B?

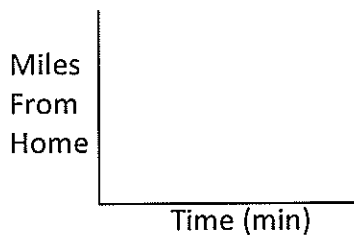


12) Sketch the graph of a line that crosses through the point (0, 0) and has a slope of  $-\frac{1}{3}$ .



13) You walk from home to school, a distance of 1 mile, at a constant rate in 10 minutes.

Plot the scenario on the graph below:

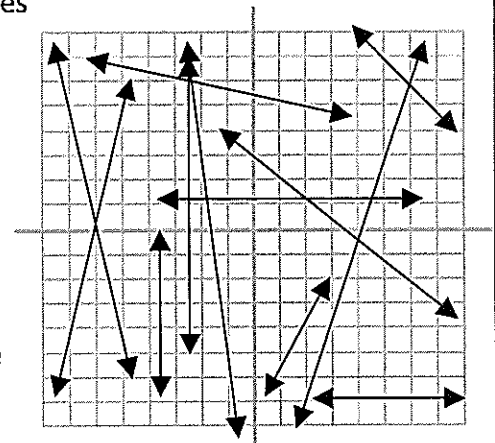


14) How many lines have a positive slope?

b) How many lines have a negative slope?

c) How many lines have a slope of zero?

d) How many lines have an undefined slope?



15) **Explain.** How do you find the slope of a line given two ordered pairs? Create two ordered pairs, and write out the process with which you would find the slope of the line that connects the two points.

**PUSH IT TO THE LIMIT.**



Name: \_\_\_\_\_ TP: \_\_\_\_\_

HW#3A **FORM A:** *Do All Students Need  
Challenging Math in High School* Reflection  
Geometry  
Due Date: Tuesday, September 4<sup>th</sup>, 2012

Failure to write in **COMPLETE SENTENCES** will result in LaSalle.

1) List three statistics from the article that indicate that higher level math is indicative of future success:

- 
- 
- 

2) Summarize your interpretation of the first graph titled "Highest level of math in high school is the strongest predictor of BA attainment, regardless of race, family income or background" (1 – 2 sentences).

3) Why is it important to take higher level math even if you do not plan on attending a 4-year college?

4) Why do college graduates say that Algebra II helped them in college?

5a) What percentage of graduates said they would work harder and apply themselves more if they could go back and do high school all over again?

\_\_\_\_\_

b) Summarize your interpretation of the third graph titled "Majority of graduates would have taken harder courses" (1 – 2 sentences).

**PUSH IT TO THE LIMIT.**

6) Quote 1 – 2 sentences that were impactful. *Why* were they impactful?

1:

2:

7) What can states do to increase the percentage of students taking higher level math courses in high school?

8) What are your *three* key take-aways from this article? In other words, what are the three things that really stuck with you after finishing the article?

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9) What do you want to be when you grow up? How does math apply to this job?

10) List at least one job that requires math/problem solving/logic/strategic thinking/architectural design that may interest you. Explain how math relates to this job. *If you cannot think of one off of the top of your head, look it up online!*

**PUSH IT TO THE LIMIT.**